ELSEVIER

Protein Structure and Molecular Enzymology

Vol. 1431, 1999

BIOCHIMICA ET BIOPHYSICA ACTA

BBA

Cumulative Contents

Information for Contributors vii

Regular papers

Multiple folding pathways for heterologously expressed human prion protein
G.S. Jackson, A.F. Hill, C. Joseph, L. Hosszu, A. Power, J.P. Waltho, A.R. Clarke and J. Collinge (UK) 1

Fluorescein monophosphates as fluorogenic substrates for protein tyrosine phosphatases
Q. Wang, J. Scheigetz, M. Gilbert, J. Snider and C. Ramachandran (Canada) 14

Protein movement during complex-formation between tissue plasminogen activator and plasminogen activator inhibitor-1
P. Björquist, J. Ehnebom and J. Deinum (Sweden) 24

Influence of different types of effectors on the kinetic parameters of suicide inactivation of catalase by hydrogen peroxide
M. Ghadermarzi, A.A. Moosavi-Movahedi and M. Ghadermarzi (Iran) 30

Comparison of physical chemical properties of llama V_{HH} antibody fragments and mouse monoclonal antibodies
R.H.J. van der Linden, L.G.J. Frenken, B. de Geus, M.M. Harmsen, R.C. Ruuls, W. Stok, L. de Ron, S. Wilson, P. Davis and C.T. Verrips (The Netherlands, UK) 37

Reactions of prostaglandin endoperoxide synthase with hydroperoxide and reducing substrates under single turnover conditions
V. Koshkin and H.B. Dunford (Canada) 47

Effects of high pressure and temperature on the wild-type and F29W mutant forms of the N-domain of avian troponin C
A. Yu, L. Ballard, L. Smillie, J. Pearlstone, D. Foguel, J. Silva, A. Jonas and J. Jonas (Brazil, Canada, USA) 53

Cathepsin D from the liver of the Antarctic icefish *Chionodraco hamatus* exhibits unusual activity and stability at high temperatures
C. Capasso, W.E. Lees, A. Capasso, R. Scudiero, V. Carginale, P. Kille, J. Kay and E. Parisi (Italy, UK) 64

Drosophila lebanonensis alcohol dehydrogenase: pH dependence of the kinetic coefficients
M. Kaaber Brendskag, J.S. McKinley-McKee and J.-O. Winberg (Norway) 74

Purification, properties and enhanced expression under nitrogen starvation of the $NADP^+$-isocitrate dehydrogenase from the cyanobacterium *Phormidium laminosum*
M.A. Pardo, M.J. Llama and J.L. Serra (Spain) 87

Hydrolysis of emulsified mixtures of triacylglycerols by pancreatic lipase
T. Käämbre, V. Tõugu, P. Käämbre, H. Vija and P. Sikk (Estonia) 97

Candidacidal activity prompted by N-terminus histatin-like domain of human salivary mucin (MUC7)
T.L. Gururaja, J.H. Levine, D.T. Tran, G.A. Naganagowda, K. Ramalingam, N. Ramasubbu and M.J. Levine (USA) 107

Conformation, pH-induced conformational changes, and thermal unfolding of anti-p24 (HIV-1) monoclonal antibody CB4-1 and its Fab and Fc fragments
K. Welfle, R. Misselwitz, G. Hausdorf, W. Höhne and H. Welfle (Germany) 120

The role of the non-conserved residue at position 104 of class A β-lactamases in susceptibility to mechanism-based inhibitors
F. Guo, J. Huynh, G.I. Dmitrienko, T. Viswanatha and A.J. Clarke (Canada) 132

Amino acid residues of heparin cofactor II required for stimulation of thrombin inhibition by sulphated polyanions
N.S. Colwell, M.J. Grupe and D.M. Tollefsen (USA) 148

Cloning, expression and biochemical characterization of a basic-acidic hybrid phospholipase A_2-II from *Agkistrodon halys* Pallas
X. Liu, H. Pan, G. Yang, X. Wu and Y. Zhou (China) 157

Crotonobetaine reductase from *Escherichia coli* consists of two proteins
A. Preusser, U. Wagner, T. Elssner and H.-P. Kleber (Germany) 166
Porcine odorant-binding protein: structural stability and ligand affinities measured by Fourier-transform infrared spectroscopy and fluorescence spectroscopy
S. Paolini, F. Tanfani, C. Fini, E. Bertoli and Paolo Pelosi (Italy) 179
Characterization of toad liver glutathione transferase
T. Bucciarelli, P. Sacchetta, A. Pennelli, L. Cornelio, R. Romagnoli, S. Melino, R. Petruzzelli and C. Di Ilio (Italy) 189
A novel 35 kDa frog liver acid metallophosphatase
A. Szalewicz, B. Radomska, B. Strzelczyk and A. Kubicz (Poland) 199
Purification of beef kidney D-aspartate oxidase overexpressed in *Escherichia coli* and characterization of its redox potentials and oxidative activity towards agonists and antagonists of excitatory amino acid receptors
A. Negri, G. Tedeschi, F. Ceciliani and S. Ronchi (Italy) 212
Structural characterization, stability and fatty acid-binding properties of two French genetic variants of human serum albumin
L. Minchiotti, U. Kragh-Hansen, H. Nielsen, E. Hardy, A.-Y. Mercier and M. Galliano (Denmark, France, Italy) 223
The role of the P_2' position of Bowman-Birk proteinase inhibitor in the inhibition of trypsin
T. Gariani, J.D. McBride and R.J. Leatherbarrow (UK) 232
The individual tyrosines of proteins: their spectra may or may not differ from those in water or other solvents
J.A. Kornblatt, M.J. Kornblatt, R. Lange, E. Mombelli and J.G. Guillemette (Canada, France) 238
Molecular characterisation of a novel thermophilic nitrile hydratase
R.A. Cramp and D.A. Cowan (UK) 249

Rapid report

The location of active site opening and closing events in the prehydride transfer phase of the oxidative deamination reaction catalyzed by bovine liver glutamate dehydrogenase using a novel pH jump approach
S.K. Saha and H.F. Fisher (USA) 261

Announcements 266

Information for Contributors vii

Regular papers

Thermodynamics of nucleotide binding to the chaperonin GroEL studied by isothermal titration calorimetry: evidence for noncooperative nucleotide binding
T.P. Terada and K. Kuwajima (Japan) 269
Binding of polylysine to GroEL. Inhibition of the refolding of mMDH
C.K. Lau and J.E. Churchich (China) 282
Binding modes of a new epoxysuccinyl–peptide inhibitor of cysteine proteases. Where and how do cysteine proteases express their selectivity?
C. Czaplewski, Z. Grzonka, M. Jaskólski, F. Kasprzykowski, M. Kozak, E. Politowska and J. Ciarkowski (Poland) 290
Functionally important residues tyrosine-171 and serine-158 in sepiapterin reductase
K. Fujimoto, H. Ichinose, T. Nagatsu, T. Nonaka, Y. Mitsui and S. Katoh (Japan) 306
Membrane topography of the renal phosphate carrier NaPi-2: limited proteolysis studies
J. Paquin, E. Vincent, A. Dugré, Y. Xiao, C.J.C. Boyer and R. Béliveau (Canada) 315
S′ subsite mapping of serine proteases based on fluorescence resonance energy transfer
S. Grahn, T. Kurth, D. Ullmann and H.-D. Jakubke (Germany) 329
Effect of acrylamide on aldolase structure. I. Induction of intermediate states
P. Dobryszycki, M. Rymarczuk, G. Bulaj and M. Kochman (Poland) 338
Effect of acrylamide on aldolase structure. II. Characterization of aldolase unfolding intermediates
P. Dobryszycki, M. Rymarczuk, J. Gapiński and M. Kochman (Poland) 351
Pyruvate phosphate dikinase from a thermophilic actinomyces *Microbispora rosea* subsp. *aerata*: purification, characterization and molecular cloning of the gene
N. Eisaki, H. Tatsumi, S. Murakami and T. Horiuchi (Japan) 363
Interaction of FliI, a component of the flagellar export apparatus, with flagellin and hook protein
E. Silva-Herzog and G. Dreyfus (Mexico) 374
Solution structure of α-conotoxin ImI determined by two-dimensional NMR spectroscopy
H. Gouda and S. Hirono (Japan) 384

Effect of self-association of α_{s1}-casein and its cleavage fractions α_{s1}-casein(136–196) and α_{s1}-casein(1–197), on aromatic circular dichroic spectra: comparison with predicted models
M.H. Alaimo, E.D. Wickham and H.M. Farrell Jr (USA) 395

Conformational analysis of the hydrophobic peptide α_{s1}-casein(136–196)
M.H. Alaimo, H.M. Farrell Jr. and M.W. Germann (USA) 410

The insulin receptor tyrosine kinase domain in a chimaeric epidermal growth factor–insulin receptor generates Ca^{2+} signals through the PLC-γ1 pathway
D. Telting, R.L.L. Smeets, P.H.G.M. Willems, G.C.M. van der Zon, W.S. Frankhuizen and J.A. Maassen (The Netherlands) 421

EXAFS study of zinc coordination in bacitracin A
F. Drablos, D.G. Nicholson and M. Ronning (Norway) 433

Characterisation of several Hsp70 interacting proteins from mammalian organelles
D.J. Naylor, N.J. Hoogenraad and P.B. Hoj (Australia) 443

Structural properties of human glycodelin A in water and in water-alcohol mixtures: a comparison with bovine β-lactoglobulin A
M.C. Gaudiano, A. Pala and M. Barteri (Italy) 451

NifL of *Klebsiella pneumoniae*: redox characterization in relation to the nitrogen source
K. Klopprogge and R.A. Schmitz (Germany) 462

Optimising the signal peptide for glycosyl phosphatidylinositol modification of human acetylcholinesterase using mutational analysis and peptide-quantitative structure–activity relationships
G. Bucht, P. Wikström and K. Hjalmarsson (Sweden) 471

Bradykinin modulates the ouabain-insensitive Na^+-ATPase activity from basolateral membrane of the proximal tubule
C. Caruso-Neves, A.S.E. Siqueira, G. Iso-Cohen and A.G. Lopes (Brazil) 483

Kinetic analysis on nitric oxide binding of recombinant Prolixin-S, a nitric oxide transport protein from the bloodsucking bug, *Rhodnius prolixus*
Y. Kaneko, M. Yuda, T. Iio, T. Murase and Y. Chinzei (Japan) 492

Structure-reactivity probes for active site shapes of cholesterol esterase by carbamate inhibitors
G. Lin, C.-T. Shieh, Y.-C. Tsai, C.-I. Hwang, C.-P. Lu and G.-H. Chen (Taiwan) 500

Short sequence-papers

O-Crystallin, arginine kinase and ferritin from the octopus lens
R.D. Zinovieva, J. Piatigorsky and S.I. Tomarev (USA) 512

cDNA sequence, mRNA expression, and chromosomal localization of human carbonic anhydrase-related protein, CA-RP XI
K. Fujikawa-Adachi, I. Nishimori, T. Taguchi, K. Yuri and S. Onishi (Japan) 518

Cloning and preliminary characterization of a 121 kDa protein with multiple predicted C2 domains
N.J. Morris, S.A. Ross, J.M. Neveu, W.S. Lane and G.E. Lienhard (USA) 525

Cloning and characterization of a 5.9 kb promoter region of the human pyruvate dehydrogenase α subunit gene
J. Tan and M.S. Patel (USA) 531

Isolation and characterization of the gene encoding the starch debranching enzyme limit dextrinase from germinating barley
M. Kristensen, F. Lok, V. Planchot, I. Svendsen, R. Leah and B. Svensson (Denmark) 538

Cloning, sequence analysis, and expression of the *Pseudomonas putida* 33/1 1*H*-3-hydroxy-4-oxoquinoline 2,4-dioxygenase gene, encoding a carbon monoxide forming dioxygenase
N. Max, A. Betz, S. Facey, F. Lingens, B. Hauer and S. Fetzner (Germany) 547

Cumulative Contents, Vol. 1431 553

Author Index 557